A LISTROPHORID PARASITE OF THE WALLABY, FROM NEW GUINEA.

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(Five Text-figures.)

[Read 31st July, 1940.]

About thirty of these parasites were taken from a wallaby at Bulolo, T.N.G. They were attached, head downwards, to the fine white hairs on the posterior part of the abdomen and the medial surfaces of the hind legs. Occasionally two specimens occupied the same hair.

There are two forms, presumably male and female, but there is no direct evidence as to which is which. Inside some of each appear large duplicates, occupying almost the whole of the body space; these have eight legs, and therefore cannot be larvae (apart from the fact that they are so large that they could only emerge by destroying the whole shell; and that they lie in the same direction as the containing shell, whereas the larvae in this genus lie in the opposite direction). It is assumed that they are forms undergoing metamorphosis within the nymphal skin of the previous stage; this assumption is apparently supported by the fact that frequently an empty skin, split along the mid-line of the abdomen, is found attached to a hair, with a complete specimen attached directly behind it.

Of these two forms, one is consistently larger, and shows distinct differences from the smaller form as regards the terminalia, and in the number, size, and arrangement of the body setae.

There is indirect evidence as to sex, however. Lawrence (*Parasitology*, xxx, 3, 1938, 309) has described specimens of *Labidocarpus nasicolus* from a bat, which contain hexapod embryos within the abdomen, and are therefore females. No males were taken. The general setological plan of these specimens corresponds almost exactly with that of the smaller New Guinea form, and therefore this form is here described, provisionally, as the female.

There is no apparent difference between a newly-emerged form and its preceding stage, as far as can be ascertained from an examination of the cast skin. Where a contained form can be compared with its intact outer skin, the terminalia appear to be identical in form. It is because of this that the specimens are described as last-stage nymphs and/or young adults, since it is most likely that differences in development of the terminalia would be apparent only in the earlier nymphal metamorphoses.

Family Listrophoridae Canestrini.

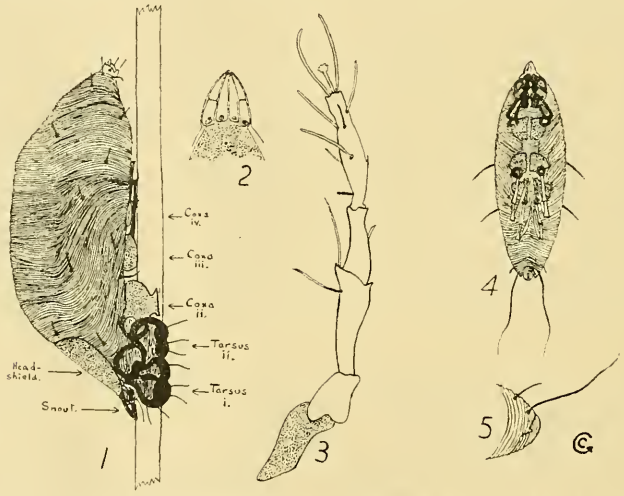
Genus Labidocarpus Trouessart 1895.

Ann. Soc. ent. France, lxiv, Bull., xxxviii.

Labidocarpus bulolensis, n. sp. Figs. 1–5.

Many last-stage nymphs and/or young adults, from a scrub wallaby (a local highland form of *Macropus* (*Thylogale*) *coxeni* Gray 1866), taken at Bulolo, T.N.G., November, 1939.

Body flat or concave ventrally, rounded dorsally, tapering caudally; the male longer and stouter; the female slighter, and curved ventrally from front to rear. The body with pronounced heavy coarse transverse striations. Ventrally, between the coxae, a shallow groove with fine transverse striations. Colour dark chocolate-brown. Female: Length, 292 to 325μ; height, 100 to 115μ; width, 100 to 115μ. Male: Length, 375 to 542μ; height, 111 to 209μ; width, 111 to 209μ. Snout tapering to a thin margin, point rounded; covered dorsally and laterally with a thin translucent hood. Chelicerae sharply pointed, straight or with a slight ventral curvature. Palpi sharply pointed, lying close alongside the chelicerae as in Figure 2. Hood overlapping the snout, its edges lying on the surface of the supporting hair. Head-shield finely pitted; attached at the base, lying back against the forward slope of the body. Legs, 4: i and ii highly modified for gripping the



Figs. 1-5.—*Labidocarpus buloloensis*, n. sp. 1, Male, lateral view; 2, Dorsal view of snout; 3, Leg iv; 4, Ventral view of female; 5, Lateral view of apex of abdomen, female.

supporting hair, compact, and heavily chitinized, so that details cannot be made out; iii and iv with five segments, not used for grasping the supporting hair, but with the last two segments folded forward beneath the abdomen. Coxae finely pitted; coxae ii project down alongside the supporting hair, but apparently do not grasp it. Each coxa terminates in a chitinized ring, those of legs i and ii very large. The second segments of legs i and ii appear to be composed of two more or less parallel chitinized bars, with lighter material between. The tarsi of legs i and ii are thickened, apparently bilobed, bearing a few short nude setae, as in Figures 1 and 4. Legs iii and iv bear a few nude setae, as in Figure 3: tarsi long and slender, bearing two slender claws and a shorter empodium. Body setae nude, tapering to a fine point: in the male, all short, 26 in number, arranged as in Figure 1; in the female they are longer, those at the apex very long (120 to 150μ), 8 in number, arranged as in Figures 4 and 5. Terminalia at the apex of the abdomen, as in Figure 1 (male) and Figures 4 and 5 (female).

Type specimen in the collections of the School of Public Health and Tropical Medicine, University of Sydney.